Terms of Reference

Conduct a Streamlined Audit of Pest-Related Data Management across ISABU, DPV and MINEAGRIE to Identify Priority Gaps and Overlaps

Background

Effective pest surveillance, diagnosis, risk assessment, phytosanitary decision-making and pest management depend on the availability of reliable, timely and accessible pest-related data. Such data may include information on pest occurrence and distribution, pest identification and diagnosis, crop and host associations, disease incidence, pest outbreaks, surveillance activities, pest risk assessments, phytosanitary measures and pest management interventions.

In Burundi, pest-related information is generated and managed by several institutions, including the **Institut des Sciences Agronomiques du Burundi (ISABU)**, the **Direction de la Protection des Végétaux (DPV)** and the **Ministère de l'Environnement, de l'Agriculture et de l'Élevage (MINEAGRIE)**. These institutions have complementary mandates and may maintain data in different formats, systems and locations.

The absence of a consolidated understanding of existing pest-related datasets, data flows, management practices and institutional responsibilities can result in data gaps, duplication, parallel data collection, inconsistent terminology and difficulties in accessing or integrating information. These challenges can limit the effective use of existing evidence for pest surveillance, early warning, diagnostics, phytosanitary decision-making, research and agricultural policy.

This activity will therefore undertake a **streamlined data audit** across ISABU, DPV and MINEAGRIE. The audit will focus on identifying what pest-related data and information exist, where they are held, how they are generated and managed, who is responsible for them, how they are shared and used, and where important gaps, overlaps or interoperability challenges occur.

The exercise is intended to provide a practical evidence base to strengthen coordination and develop a more coherent approach to pest-related data management and sharing in Burundi.

Purpose

The purpose of the activity is to establish a concise institutional overview of pest-related data assets, management practices and data flows across ISABU, DPV and MINEAGRIE, and to identify **priority data gaps, overlaps, duplication and opportunities for improved coordination and interoperability**.

Specific Objectives

The audit will aim to:

1. **Identify and catalogue key pest-related information** generated, maintained or used by ISABU, DPV and MINEAGRIE.
2. **Assess the scope and characteristics of existing datasets**, including data types, coverage, spatial and temporal dimensions, formats, frequency of updating and intended uses.
3. **Map institutional data flows and responsibilities** from data generation and collection through validation, storage, analysis, sharing and use.
4. **Identify priority information gaps and overlaps**, including duplication of data collection, parallel databases or records, missing data elements and areas where institutional mandates or data responsibilities intersect.
5. **Assess key data-management and interoperability constraints**, including differences in terminology, coding systems, data formats, identifiers, metadata and mechanisms for data exchange.
6. **Identify opportunities for harmonisation and improved data sharing** among the three institutions.
7. **Develop practical recommendations and priority actions** to strengthen pest-related data management and support evidence-based pest surveillance and phytosanitary decision-making.

Scope of the Audit

The audit will focus specifically on **a variety of information sources** relevant to plant health and agricultural production. It will not constitute a comprehensive audit of the information-management systems of the three institutions.

The assessment will consider, where applicable:

- Pest occurrence and distribution records;
- Pest surveillance and monitoring data;
- Pest outbreak and emergency-response records;
- Pest and disease incidence data;
- Diagnostic and laboratory records;
- Pest identification and taxonomic information;
- Host and crop association data;
- Pest risk assessment and pest status information;
- Phytosanitary surveillance and inspection data;
- Pest interception and notification records;
- Pest management and control intervention data;
- Relevant research and experimental data;
- Geospatial and location information associated with pest records;
- Historical pest records and archived datasets; and
- Other datasets considered strategically important for pest surveillance and decision-making.

The audit should consider both **digital and relevant non-digital information resources**, including databases, spreadsheets, laboratory information, survey records, reports and other structured or semi-structured datasets.

Key Assessment Dimensions

For each priority dataset or information resource, the audit should capture, to the extent practical:

Assessment dimension	Key information
Dataset/information resource	Name and brief description
Institutional owner	Institution and responsible unit
Data custodian	Person/unit responsible for management
Data type	Occurrence, surveillance, diagnostic, laboratory, risk assessment, etc.
Data elements	Key variables and information captured
Spatial coverage	National, provincial, district, site-specific, etc.
Temporal coverage	Years/period covered and frequency of updating
Data format	Database, spreadsheet, paper records, GIS, laboratory system, etc.
Data source	Surveillance, laboratory, research, inspection, reporting, etc.
Data quality	Completeness, consistency, validation and reliability
Accessibility	Who can access and under what conditions
Data sharing	Existing mechanisms and users
Interoperability	Compatibility with other datasets/systems
Duplication/overlap	Similar or duplicated datasets maintained elsewhere
Key gaps	Missing data, variables, geographic/temporal coverage or functionality
Priority	Relative importance for pest surveillance and decision-making

Methodology

The audit will use a **rapid, consultative and evidence-based approach**, combining document review, institutional consultations and structured dataset mapping.

Inception and Desk Review

The consultant/team will undertake an initial review of relevant institutional documents and available information, including:

- Existing databases and data-management systems;
- Pest surveillance protocols and reporting mechanisms;

- Laboratory and diagnostic records;
- Pest survey reports and datasets;
- Existing GIS or spatial datasets;
- Institutional mandates and procedures relevant to pest data;
- Data-sharing arrangements and reporting requirements; and
- Relevant national plant health, phytosanitary and agricultural information systems.

The desk review will establish an initial inventory to guide subsequent consultations.

Institutional Consultations

Structured consultations will be conducted with relevant focal persons from:

- **ISABU**, particularly units involved in agricultural research, pest diagnostics, plant health and data management;
- **DPV**, particularly units responsible for plant protection, pest surveillance, diagnostics, inspection and phytosanitary information; and
- **MINEAGRIE**, particularly units responsible for agricultural information, planning, policy, statistics and information management.

Where necessary, additional technical personnel responsible for databases, laboratory information, GIS or ICT systems may be consulted.

Data Inventory and Mapping

A standardised data inventory template will be used to document the main pest-related datasets identified across the three institutions.

The exercise will map:

Data generation → collection → validation → storage → analysis → sharing → use

This will help identify where data are generated independently, where the same information is collected by multiple institutions and where information flows break down.

Gap and Overlap Analysis

The identified datasets will be compared to determine:

- Critical information gaps;
- Geographic and temporal gaps;
- Missing priority pest or host information;
- Duplication of data collection;
- Datasets covering similar variables or populations;
- Differences in data definitions and terminology;
- Incompatible formats or coding systems;
- Data that exist but are difficult to access or use;

- Data that are collected but not routinely analysed or shared; and
- Opportunities to integrate or link existing datasets.

Gaps and overlaps should be prioritised according to their implications for **pest surveillance, early warning, diagnostics, phytosanitary decision-making and pest management**.

Key Outputs

Output 1: Institutional Pest Data Inventory

A consolidated inventory of key pest-related datasets and information resources held or managed by ISABU, DPV and MINEAGRIE.

Output 2: Pest Data Flow Map

A simplified visual representation of how pest-related information is generated, managed, exchanged and used across the three institutions.

Output 3: Gap and Overlap Matrix

A prioritised matrix identifying:

- Critical data gaps;
- Data duplication and overlaps;
- Data-quality issues;
- Accessibility constraints;
- Interoperability challenges; and
- Opportunities for harmonisation and integration.

Output 4: Recommendations and Priority Action Plan

A concise set of recommendations identifying practical measures to improve pest-related data management, coordination and sharing.

Recommendations should distinguish between:

- **Immediate/low-cost actions**;
- **Medium-term institutional or technical actions**; and
- **Longer-term system-level interventions**.

Expected Deliverables

The consultant/team will provide:

1. **Inception note and audit framework**, including the proposed methodology and data-inventory template.
2. **Completed institutional pest data inventory** covering ISABU, DPV and MINEAGRIE.

3. **Pest data-flow map** showing major data-generation, management and sharing pathways.
4. **Priority gap and overlap matrix**.
5. **Final streamlined data-audit report**, including findings, conclusions and recommendations.
6. **Priority action plan** for improving coordination, harmonisation and interoperability of pest-related data.

Qualifications and Experience Requirements

The consultant/team shall demonstrate relevant technical and practical experience in plant health, pest surveillance and pest-related data systems. At least one proposed key expert shall have demonstrable experience in each of the following areas:

- Horizon scanning for emerging, invasive or priority plant pests, including the identification and prioritisation of pest threats;
- Pest risk analysis, including the assessment of pest entry, establishment, spread and potential consequences; and
- Planning, conducting or supporting detection and delimiting surveillance for plant pests, including survey design, field data collection, diagnostic coordination and interpretation of surveillance results;
- Working with agricultural extension systems and frontline extension personnel to collect, validate and use plant health data, including feedback and reporting arrangements; and
- Developing contingency and response plans for plant pest incursions or outbreaks, including roles, decision triggers, coordination mechanisms and communication arrangements; and
- A sound understanding of the Plant Doctor and Plant Clinic system, including its use in plant health advisory services, pest diagnosis, data recording and reporting.

The proposal shall include concise CVs and examples of relevant assignments demonstrating this experience.

Institutional Participation

The activity will be undertaken in close collaboration with designated focal points from ISABU, DPV and MINEAGRIE.

Each institution is expected to:

- Identify relevant datasets and information resources;
- Designate appropriate technical focal persons;
- Facilitate access to relevant documentation and, where appropriate, datasets;
- Participate in consultations and validation sessions;
- Review findings concerning their institution; and
- Contribute to the identification of feasible recommendations and priority actions.

Submission Instructions

Interested and qualified consultant should submit their technical and financial proposal (In USD) to the email tendersafrica@cabi.org; on or before **9th November** 2026. Questions related to this request for proposal should be addressed to the same email.